

ESTIMATED FLOOD LOSSES FOR 1944 AND 1945<sup>1</sup>

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Monetary losses from floods in the United States have been estimated at about \$94,000,000 for the year 1944, and nearly \$166,000,000 for 1945. A total of 119 lives were lost as a result of the floods during those two years, 28 during 1944, and 91 during 1945. Savings resulting from the flood forecasting and warning service were evaluated at about \$50,000,000.

Outstanding during 1944 was the extensive, destructive flooding in the Central States during April, May, and June, one year after the extraordinary floods of May 1943, in practically the same region. The greatest floods of record occurred in May in portions of the upper Neosho River, and the highest floods since 1903 occurred in the

lower Missouri. Record-high stages were approached in June in many streams and were exceeded in a few in the upper Mississippi River Basin in eastern Texas.

The major flood event of 1945 was that of the Ohio River in March. It ranked generally among the first four or five of the greatest floods of record in that river. The greatest flood of record in the upper Mohawk River Basin since 1918 occurred in October. Destructive flash floods also occurred in the small streams in the Lake Section of Rensselaer County and Columbia County, New York, on July 22d, as a result of intense thunderstorms.

<sup>1</sup> Flood loss statistics for 1942 and 1943 were published in the August 1945 issue of the Monthly Weather Review.

1944

River and drainage	Tangible property	Matured crops	Prospective crops	Livestock and other movable farm property	Suspension of business	Total	Lives lost
<b>HUDSON BAY DRAINAGE</b>							
Red River of the North.....	\$600				\$500	\$1,100	
<b>ST. LAWRENCE DRAINAGE</b>							
Bad and White Rivers (Wisconsin).....						128,800	
Maumee River.....	50,000		\$50,000			100,000	
Total.....	50,000		50,000			128,800	
<b>SOUTH ATLANTIC SLOPE DRAINAGE</b>							
James River.....	241,000	\$100,000		\$274,200	33,000	648,200	
Roanoke, Tar, Neuse, and Cape Fear Rivers.....	11,300	225,000	32,200		54,500	323,000	
Pee Dee River.....	7,700			1,500	21,000	30,200	
Saluda River.....	100			2,500		2,600	
Broad River.....	1,500		11,500	400	800	14,200	
Catawba-Wataree Rivers.....	1,500		500	300	2,400	4,700	
Santee River.....	7,500				10,600	18,100	
Savannah and Ogeechee Rivers.....	3,000	100	1,000	25,800	52,900	83,800	
Altamaha River.....	546,800	78,000	101,700	22,200	53,000	801,700	
Total.....	820,400	403,100	146,900	327,900	228,200	1,926,500	
<b>EAST GULF OF MEXICO DRAINAGE</b>							
Apalachicola River.....	1,125,600	16,000	192,000	17,000	28,900	1,379,500	
Concuh River.....	35,400	5,000	22,500	2,100	48,500	113,500	
Tallahassee River.....	20,000		20,000	25,000	5,000	70,000	
Cahaba River.....					1,000	1,000	
Alabama River.....	5,000	20,000	75,000		2,000	102,000	
Tombigbee River.....	469,200	6,000	227,800	25,800	149,400	878,200	
Chickasawhay River.....					500	500	
Pearl River.....	90,500		4,000	4,500	16,500	115,500	
Total.....	1,745,700	47,000	541,300	74,400	251,800	2,660,200	
<b>MISSISSIPPI SYSTEM</b>							
<i>Upper Mississippi Basin</i>							
Minnesota River.....	25,000		600,000	10,000	60,000	695,000	
St. Croix River.....			25,000			25,000	
Zumbro and Whitewater Rivers.....			40,000			40,000	
Buffalo and Trempealeau Rivers.....			6,000			6,000	
Root River.....			2,000			2,000	
Rock River.....	1,000			200	300	1,500	
Iowa River.....	125,000	5,000	250,000	50,000	20,000	460,000	
Skunk River.....	1,512,500	15,000	1,545,000	9,700	66,000	3,169,100	
Raccoon River.....	178,900	1,600	595,800	1,200	100	777,600	
Des Moines River.....	1,406,100	65,300	840,500	200,100	57,200	2,569,200	
Salt and Fox Rivers.....	3,000		11,500			14,500	
Illinois River.....	187,500		756,000		16,500	960,000	
Meramec River.....	103,100		178,000			281,100	
Kaskaskia River.....	81,400		1,037,800			1,119,200	
Mississippi River (above Cape Girardeau, Mo.).....	5,951,600	250,000	8,704,200	164,800	1,840,000	16,910,600	7
Total.....	9,595,100	337,800	14,601,800	436,000	2,060,100	27,030,800	7

See footnotes at end of table.

## ESTIMATED FLOOD LOSSES FOR 1944 AND 1945—Continued

1944—Continued

River and drainage	Tangible property	Matured crops	Prospective crops	Livestock and other movable farm property	Suspension of business	Total	Lives lost
<b>MISSISSIPPI SYSTEM—continued</b>							
<i>Missouri Basin</i>							
Yellowstone River	\$89,100			\$5,000	\$7,700	\$101,800	
Little Missouri River	2,000					2,000	
Heart River	9,500					9,500	
Cannonball River						153,400	
Grand River (South Dakota)						1379,400	
Moreau River						162,300	
Cheyenne River						116,500	
Vernillion River	23,000		\$528,900			551,900	
Big Sioux River	23,000		254,600		5,600	283,200	
Aowa Creek (Nebraska)	136,800		81,900			218,700	
Perry Creek (Sioux City, Iowa)	1,037,100					1,037,100	
Floyd River	24,800	\$1,700	19,300	300		46,100	
Little Sioux River	91,800		676,800	100		768,700	
Boyer River	7,500		48,600			56,100	
Lodgepole Creek (Nebraska)	121,400		128,000			249,400	
Elkhorn River	4,766,400	1,300	3,751,000	633,500	9,500	9,161,700	2
Platte River	146,400		525,400		5,000	671,800	
Nishabotna River	45,900		652,600			703,500	1
Tekamah Creek (Nebraska)	132,300		507,300			639,600	1
Little Nemaha River	1,200		94,800			96,000	
Nodaway River (Missouri)	16,000		11,600	100		27,700	
Solomon River	18,100		258,100	2,200		278,400	
Smoky Hill River	9,000		31,000	500	5,000	45,500	
Big Blue River	540,500		1,131,900	300		1,672,700	
Republican River	199,900	1,474,400	20,000	1,600		1,700,900	
Kansas River	103,000	3,000	210,900	144,500	16,000	477,400	
Grand River (Missouri)	122,800		568,000	1,000	32,000	723,800	
Chariton River	17,900		85,000	900		103,800	1
Blackwater River (Missouri)	4,000		173,000			178,000	
Osage River	964,900	151,000	748,200	16,700	25,700	1,906,500	
Missouri River	12,452,600	26,100	9,651,900	71,600	107,100	22,395,300	8
Total	21,107,800	1,657,500	20,155,900	878,300	213,600	44,615,700	1
<i>Ohio Basin</i>							
Tygart River						13,800	
Little Kanawha River	2,000					2,000	
Scioto River						14,900	
White River	98,800		119,900	5,900	29,000	253,600	
Wabash River	14,500		224,800	3,200	11,600	254,100	
Cumberland River	1,100		300	800		2,200	
French Broad River						142,200	
Tennessee River and tributaries	122,900			1,800	36,000	160,700	
Ohio River	10,000	700	61,800	5,000	5,000	82,500	
Total	249,300	700	406,800	16,700	81,600	806,000	
<i>White—Arkansas Basins</i>							
White River		5,500	74,800		2,800	83,100	
Walnut River	29,000	17,500	20,000	7,500		74,000	5
Verdigris River	361,300	3,200	966,600	39,100	72,100	1,422,300	
Cottonwood River	221,000	530,000	429,500	18,000	6,000	1,204,500	
Neosho River	129,300	240,200	158,000	32,200	7,600	567,300	
North Canadian River	76,500		8,000	2,500		87,000	
South Canadian River	5,000	4,500	18,000			27,500	
Poteau River	500		3,500			4,000	
Arkansas River	350,000	60,700	181,900		108,800	701,400	5
Total	1,172,600	861,600	1,860,300	99,300	177,300	4,171,100	10
<i>Red Basin</i>							
Little River	20,000		230,000	1,500		251,500	
Sulphur River	82,400	11,000	140,300	5,400	442,100	681,200	
Cypress River	348,000	20,000	354,000	13,700	7,500	743,200	
Total	450,400	31,000	724,300	20,600	449,600	1,675,900	
<i>Lower Mississippi Basin</i>							
Yazoo and Black Rivers	100,000		1,430,000	20,000		1,550,000	
<i>WEST GULF OF MEXICO DRAINAGE</i>							
Sabine River	433,000	28,000	1,320,000	76,000	34,200	1,891,200	3
Neches River	75,000	260,300	750,000	80,000		1,185,300	
Trinity River	1,057,000	6,000	2,396,000	347,500	34,000	3,840,500	
Brazos River	753,300	22,000	1,018,500	5,100	4,500	1,803,400	
Pedernales River	15,000			5,100		20,100	
Guadalupe River	3,000	2,500		1,500		7,000	
Nueces River	3,000	2,500		200		5,700	
Rio Grande River	16,900		100,700			117,600	
Total	2,356,200	341,300	5,585,200	515,400	72,700	8,938,300	3
<i>GULF OF CALIFORNIA DRAINAGE</i>							
Gila River	405,600	155,600		5,000	10,000	575,000	
Grand Totals	38,053,100	3,835,000	45,502,500	2,393,600	3,545,400	94,079,400	33

<sup>1</sup> Unclassified.<sup>2</sup> Includes all agricultural losses.<sup>3</sup> Includes losses of \$86,000 which were not classified.<sup>4</sup> Includes losses of \$5,000 which were not classified.<sup>5</sup> Includes all crop losses.<sup>6</sup> Includes losses of \$67,500 which were not classified.

## ESTIMATED FLOOD LOSSES FOR 1944 AND 1945—Continued

1945

River and drainage	Tangible property	Matured crops	Prospective crops	Livestock and other movable farm property	Suspension of business	Total	Lives lost
<b>HUDSON BAY DRAINAGE</b>							
Red River of the North	\$18,300				\$500	\$18,800	
<b>ST. LAWRENCE DRAINAGE</b>							
<i>Lake Erie</i>							
Clinton River						100,000	
<b>ATLANTIC SLOPE DRAINAGE</b>							
Streams in Lake Section, Rensselaer County, New York						5,500,000	3
Mohawk River	790,000	\$200,000			20,000	1,010,000	
Schuykill River	25,000	100,000				125,000	
Brandywine Creek	35,000	700		\$1,000	25,000	61,700	
Delaware River	827,000				205,000	1,032,000	
James River		10,000			2,000	12,000	
Cape Fear, Tar, Neuse, and Roanoke Rivers	26,900	75,300	\$11,300	10,100	59,100	182,700	3
Pee Dee River	192,500	35,000	12,000	10,500	128,500	378,500	
Congaree River	30,000	38,000		3,900	7,000	78,900	
Catawba and Wateree Rivers	34,000	207,000		1,000	51,300	293,300	
Santee River	3,000	25,000			10,000	38,000	
Broad River	10,100	11,800			1,500	23,400	
Total	1,973,500	702,800	23,300	26,500	508,400	6,735,500	6
<b>EAST GULF OF MEXICO DRAINAGE</b>							
Apalachicola River			10,000		14,800	24,800	
Cahaba River			3,000		500	3,500	
Tombigbee River	10,300			6,500	33,200	50,000	
Pearl River	45,000	10,000	70,000	20,200	44,000	189,200	
Total	55,300	10,000	83,000	26,700	92,500	267,500	
<b>MISSISSIPPI SYSTEM</b>							
<i>Upper Mississippi Basin</i>							
Tributaries of Mississippi River in Wisconsin	162,700	21,500	131,500	3,700	16,900	336,300	
Rock River	50,000		12,500	5,000		135,000	
Skunk River	500				500	1,000	
Raccoon River	14,000		5,600		1,000	20,600	
Des Moines River	42,000	2,500	30,500	3,000	9,000	87,000	
Illinois River	37,500	80,500	580,900	10,800	5,000	714,700	
Meramec River	1,590,500	252,000	270,500	7,000		2,120,000	
Mississippi River (above Cape Girardeau, Mo.)	920,900	456,800	3,770,000	78,100	648,000	5,873,800	
Total	2,818,100	813,300	4,801,500	107,600	680,400	9,288,400	
<i>Missouri Basin</i>							
Clark Fork	17,500					17,500	
Big Horn River	18,000					18,000	
Tongue River	1,000		1,200			2,200	
Powder River	2,500					2,500	
Yellowstone River	28,500					28,500	
Knife River	9,600				5,000	14,600	
Square Butte Creek	7,000					7,000	
Heart River	103,600		10,000		3,300	116,900	
Big Sioux River and North Creek	20,200		24,200		85,500	129,900	
Floyd River and streams in Sioux City area	16,000				600	16,600	
Oak Creek	35,700		100,000	7,000	3,700	146,400	
Platte River in Missouri	704,000		1,304,100	1,700	2,000	2,131,800	
Solomon and Saline Rivers	244,600		784,500	6,000	13,200	1,048,300	
Smoky Hill River	156,600		1,389,800	1,800		1,548,200	
Nemaha River	68,400		507,800	4,600	3,300	584,100	
Republican River	107,100	10,000	1,580,300	3,000	1,300	1,701,700	
Kansas River	1,308,000	12,500	7,244,900	64,100	185,600	8,815,100	
Grand River	727,000		5,764,000	3,800	30,100	6,524,900	
Chariton River	161,500		1,254,600	700	900	1,417,700	
Osage River	485,300	315,000	1,356,400	165,000	88,500	2,410,200	
Gasconade River	605,300		526,900	135,100	135,000	1,402,300	4
Minor tributaries of Missouri River	782,000	75,200	2,693,100	171,700	173,600	3,895,600	
Missouri River	463,500		1,944,000	5,200	9,800	2,422,500	
Total	6,132,000	412,700	26,545,800	569,700	741,400	34,402,500	4
<i>Ohio Basin</i>							
Allegheny River	46,300				24,100	414,800	
Monongahela River	277,000				121,700	398,700	
New River	11,000	34,000	1,300	200		46,500	
Scioto River	19,500	1,000	50,000		10,000	80,500	
Little Miami River	73,000	5,000	2,500	4,500	27,600	112,600	
Licking River	2,000	300			1,700	4,000	
Kentucky River	51,000				28,600	79,600	
White River	1,000		2,000		2,700	5,798,700	
Wabash River	39,700	10,000	140,000		8,500	6,794,000	2
Cumberland River	5,683,100	54,200	132,200	50,000	4,703,000	39,093,000	25
Ohio River							
Total	6,203,600	104,500	333,000	56,200	4,927,900	52,887,100	27
<i>White Basin</i>							
White River	243,500	100,300	933,000	57,500	137,500	1,471,800	

See footnotes at end of table.

## ESTIMATED FLOOD LOSSES FOR 1944 AND 1945—Continued

1945—Continued

River and drainage	Tangible property	Matured crops	Prospective crops	Livestock and other movable farm property	Suspension of business	Total	Lives lost
<b>MISSISSIPPI—continued</b>							
<i>Arkansas Basin</i>							
Cimarron River.....	\$6,000	\$1,000	\$18,000	\$1,500		\$26,500	
Verdigris River.....	333,000	115,500	615,900	45,000	\$21,500	1,130,900	
Cottonwood River.....	70,000	33,000	112,000	7,000	35,000	257,000	
Neosho River.....	524,300	34,700	629,500	44,200	35,100	1,267,800	
Canadian River.....	3,118,900	193,500	1,368,900	171,500	73,100	4,925,900	19
Poteau River.....	800	1,200	1,100			3,100	
Arkansas River.....	3,528,000	578,500	1,399,400	47,500	432,300	5,985,700	1
Total.....	7,581,000	957,400	4,144,800	316,700	597,000	13,596,900	20
<i>Red Basin</i>							
Ouachita River in Arkansas.....	1,222,500	69,500	395,200	445,100	179,300	2,311,600	
Black, Ouachita in Louisiana and Atchafalaya Rivers; Red River below Alexandria, La.; Mississippi River below Natchez, Miss.	1,960,100	1,090,300	4,285,600	740,300	782,500	8,858,800	
Red River above Alexandria, La.	3,760,000	5,653,000		782,600	82,800	11,038,800	6
Total.....	6,942,600	6,812,800	4,680,800	1,968,000	1,044,600	22,208,200	6
<i>Lower Mississippi Basin</i>							
Wolf River.....	500	1,000		300		1,800	
St. Francis River.....	35,000	15,000	465,000	1,000	45,000	561,000	
Yazoo River.....	155,000		1,000,000	25,000	55,000	1,235,000	
Mississippi River from Natchez, Miss., to Cape Girardeau, Mo.	329,100	60,600	1,319,800	30,200	63,800	1,803,500	
Total.....	519,600	76,600	2,784,800	56,500	163,800	3,601,300	
<b>WEST GULF OF MEXICO DRAINAGE</b>							
Sabine River.....	2,006,500	13,000	251,500	221,500	423,800	2,916,300	
Trinity River.....	1,556,900	322,500	5,193,700	183,500	219,500	7,476,100	4
Brazos River.....	105,000	106,300	337,500	15,000	11,500	575,300	
Guadalupe River.....	1,500		16,000	900		18,400	
Rio Grande River.....			500			500	
Total.....	3,669,900	441,800	5,799,200	420,900	654,800	10,936,000	4
<b>GULF OF CALIFORNIA DRAINAGE</b>							
<i>Colorado Basin</i>							
Gila River.....	176,000			500	5,000	181,500	10
<b>GREAT BASIN DRAINAGE</b>							
Great Basin Drainage.....	400,000					520,000	
<b>PACIFIC SLOPE DRAINAGE</b>							
Tehachapi River.....						162,500	3
Tule, Fresno, Kings, Kaweah Rivers and Tulare Lake.....	1,323,400		1,105,100			2,428,500	
San Joaquin River.....		8,500				366,700	
Sacramento River.....	55,500	2,000	50,000	200	11,500	381,900	
Eel River.....						112,500	
Klamath, Rogue, and Umpqua Rivers.....	77,800		200,000	500		278,300	2
Willamette River.....						6,000,000	9
Total.....	1,456,700	10,500	1,355,100	700	11,500	9,530,400	14
Grand Totals.....	38,191,000	10,442,700	51,484,300	3,607,500	9,566,300	165,796,900	91

<sup>1</sup> Unclassified.<sup>2</sup> Includes losses of \$87,500 which were not classified.<sup>3</sup> Includes losses of \$344,400 which were not classified.<sup>4</sup> Includes losses of \$5,793,000 which were not classified.<sup>5</sup> Includes losses of \$6,654,000 which were not classified.<sup>6</sup> Includes losses of \$28,470,000 which were not classified.<sup>7</sup> Includes losses of \$760,400 which were not classified.<sup>8</sup> Includes losses of \$120,000 which were not classified but resulting mostly to crops.<sup>9</sup> Includes losses of \$358,200 which were not classified.<sup>10</sup> Includes losses of \$262,700 which were not classified.